North Carolina Department of Health and Human Services
Division of Public Health • Epidemiology Section
Communicable Disease Branch

ATTENTION HEALTH CARE PROVIDERS:
Please report relevant clinical findings about this disease event to the local health department.

FOODBORNE POISONING: MUSHROOM
Confidential Communicable Disease Report—Part 2
NC DISEASE CODE: 131

REMINDER to Local Health Department staff: If sending this form to the Health Care Provider, remember to attach a cover letter from your agency indicating the part(s) of the form the provider should complete.

Patient's Last Name	First	Middle	Suffix	Maiden/Other	Alias	Birthdate *(mm/dd/yyyy)* / /
						SSN

NC EDSS LAB RESULTS Verify if lab results for this event are in NC EDSS. If not present, enter results.

Specimen Date	Specimen #	Specimen Source	Type of Test	Test Result(s)	Description (comments)	Result Date	Lab Name—City/State
/ /						/ /	
/ /						/ /	
/ /						/ /	

NC EDSS PART 2 WIZARD COMMUNICABLE DISEASE

Is/was patient symptomatic for this disease? ☐Y ☐N ☐U
If yes, symptom onset date (mm/dd/yyyy): __/__/____
CHECK ALL THAT APPLY:
Fever ☐Y ☐N ☐U
☐ Yes, subjective ☐ No
☐ Yes, measured ☐ Unknown
Highest measured temperature_____
Fever onset date (mm/dd/yyyy): ____/____/____
Drowsy ☐Y ☐N ☐U
Sweats (diaphoresis) ☐Y ☐N ☐U
Thirst ☐Y ☐N ☐U
Extreme thirst ☐Y ☐N ☐U
Dehydration ☐Y ☐N ☐U
Signs of dehydration (choose all that apply):
☐ Decreased skin turgor
☐ Dry mucous membranes
☐ Non-palpable pulse
☐ Sunken eyes
☐ Decreased urine output
Light-headedness (pre-syncope) ☐Y ☐N ☐U
Dizziness ☐Y ☐N ☐U
Altered mental status ☐Y ☐N ☐U
Patient displayed (select all that apply):
☐ Delirium ☐ Depression ☐ Hallucinations
☐ Disorientation ☐ Excitability ☐ Illusions
☐ Coma ☐ Drowsiness
Memory loss ☐Y ☐N ☐U
Memory loss was: ☐ Short term ☐ Long term
Periods of drowsiness followed by hyperactivity ☐Y ☐N ☐U
Incoherent speech ☐Y ☐N ☐U
Headache ☐Y ☐N ☐U
Seizures/convulsions ☐Y ☐N ☐U
Please specify
☐ New onset
☐ Exacerbation of underlying seizure disorder
☐ Other_____
☐ Unknown
Ataxia ☐Y ☐N ☐U
Mouth tingling/burning ☐Y ☐N ☐U
Numbness of lips or tongue ☐Y ☐N ☐U
Facial flushing ☐Y ☐N ☐U
Pain or paresthesia of the face and/or lower extremities ☐Y ☐N ☐U
Hot/cold temperature sensory reversals ☐Y ☐N ☐U
Acute onset of peripheral neuropathy ☐Y ☐N ☐U
Muscle paralysis ☐Y ☐N ☐U
Skin rash ☐Y ☐N ☐U
Skin itching (pruritis) ☐Y ☐N ☐U
Aching teeth ☐Y ☐N ☐U
Shortness of breath/difficulty breathing/ respiratory distress ☐Y ☐N ☐U
Respiratory arrest ☐Y ☐N ☐U
Palpitations ☐Y ☐N ☐U
Cardiac arrhythmias or cardiac arrest ☐Y ☐N ☐U
Hypotension ☐Y ☐N ☐U
Lowest recorded blood pressure_____
Nausea ☐Y ☐N ☐U
Vomiting ☐Y ☐N ☐U
Abdominal pain or cramps ☐Y ☐N ☐U
Diarrhea ☐Y ☐N ☐U
Describe (select all that apply)
☐ Bloody
☐ Non-bloody
☐ Watery
☐ Other
Maximum number of stools in a 24-hour period:_____
Excessive urination ☐Y ☐N ☐U
Organ failure ☐Y ☐N ☐U
If yes, specify: _____

REASON FOR TESTING

Why was the patient tested for this condition?
☐ Symptomatic of disease
☐ Screening of asymptomatic person with reported risk factor(s)
☐ Exposed to organism causing this disease (asymptomatic)
☐ Household contact to a person reported with this disease
☐ Other, specify:_____
☐ Unknown

HOSPITALIZATION INFORMATION

Was patient hospitalized for this illness >24 hours? ☐Y ☐N ☐U
Hospital name: _____
City, State:_____
Hospital contact name: _____
Telephone: (_____) _____ - _____
Admit date (mm/dd/yyyy): ____/____/____
Discharge date (mm/dd/yyyy):____/____/____

ISOLATION/QUARANTINE/CONTROL MEASURES

Did local health director or designee implement additional control measures? ☐Y ☐N
If yes, specify: _____
_____

Patient's Last Name	First	Middle	Suffix	Maiden/Other	Alias	Birthdate *(mm/dd/yyyy)* / /
						SSN

CLINICAL OUTCOMES

Discharge/Final diagnosis:_____

_____

Survived? ☐Y ☐N ☐U
Died? ☐Y ☐N ☐U
Died from this illness? ☐Y ☐N ☐U

Date of death (mm/dd/yyyy):_____/_____/_____

TRAVEL/IMMIGRATION

The patient is:
☐ Resident of North Carolina
☐ Resident of another state or US territory
☐ None of the above

Did patient have a travel history during the 24 hours prior to onset of symptoms? ☐Y ☐N ☐U

Travel dates: From:_____until _____

To city: _____

To country:_____

Does patient know anyone else with similar symptom(s) who had the same or similar travel history? ☐Y ☐N ☐U

Name: _____

Additional travel/residency information:

CHILD CARE/SCHOOL/COLLEGE

Patient in child care? ☐Y ☐N ☐U

Patient a child care worker or volunteer in child care? ☐Y ☐N ☐U

Patient a parent or primary caregiver of a child in child care? ☐Y ☐N ☐U

Is patient a student? ☐Y ☐N ☐U

Type of school:

Is patient a school WORKER / VOLUNTEER in NC school setting? ☐Y ☐N ☐U

Give details:

BEHAVIORAL RISK & CONGREGATE LIVING

During the 24 hours prior to onset of symptoms, did the patient live in any congregate living facilities (correctional facility, barracks, shelter, commune, boarding school, camp, dormitory/sorority/fraternity)**?** ☐Y ☐N ☐U

Name of facility:_____

Dates of contact: _____

During the 24 hours prior to onset of symptoms, did the patient attend social gatherings or crowded settings? ☐Y ☐N ☐U

If yes, specify:_____

In what setting was the patient most likely exposed?

☐ Restaurant
☐ Home
☐ Work
☐ Child Care
☐ School
☐ University/College
☐ Camp
☐ Doctor's office/ Outpatient clinic
☐ Hospital In-patient
☐ Hospital Emergency Department
☐ Laboratory
☐ Long-term care facility /Rest Home
☐ Military
☐ Prison/Jail/Detention Center
☐ Place of Worship
☐ Outdoors, including woods or wilderness
☐ Athletics
☐ Farm
☐ Pool or spa
☐ Pond, lake, river or other body of water
☐ Hotel / motel
☐ Social gathering, other than listed above
☐ Travel conveyance (airplane, ship, etc.)
☐ International
☐ Community
☐ Other (specify)
_____
☐ Unknown

FOOD RISK AND EXPOSURE

Where does the patient/patient's family typically buy groceries?

Store name:_____

Store city: _____

Shopping center name/address:

_____

During the 24 hours prior to onset of symptoms, did the patient:

Eat any food items that came from a produce stand, flea market, or farmer's market? ☐Y ☐N ☐U

Specify source: _____

Eat any food items that came from a store or vendor where they do not typically shop for groceries? ☐Y ☐N ☐U

Specify source(s): _____

Eat mushrooms or food containing mushrooms harvested from the wild? ☐Y ☐N ☐U

Describe the mushrooms and location where they were collected:

Are any of the wild harvested mushrooms still available for testing? ☐Y ☐N ☐U

Eat raw salads or vegetables other than sprouts? ☐Y ☐N ☐U

Specify raw salad or vegetable:
☐ Bagged salad greens without toppings, type: _____
☐ Salad with toppings, specify: _____
☐ Lettuce, type: _____
☐ Spinach
☐ Tomatoes, type: _____
☐ Cucumbers
☐ Mushrooms, type: _____
☐ Onions, type: _____
☐ Potatoes, type:_____
☐ Other, specify: _____

Eat at a group meal? ☐Y ☐N ☐U

Specify:
☐ Place of Worship
☐ School:
☐ Social function
☐ Other, Specify:_____

Eat food from a restaurant? ☐Y ☐N ☐U

Name:_____

Location:_____

OTHER EXPOSURE INFORMATION

Does the patient know anyone else with similar symptoms? ☐Y ☐N ☐U

If yes, specify:

CASE INTERVIEWS/INVESTIGATIONS

Was the patient interviewed? ☐Y ☐N ☐U

Were interviews conducted with others? ☐Y ☐N ☐U

Who was interviewed?

☐ Friend
Date of Interview: _____
Location of Interview: _____
Interpreter Used:_____

☐ Co-Worker
Date of Interview: _____
Location of Interview: _____
Interpreter Used:_____

☐ Relative
Date of Interview: _____
Location of Interview: _____
Interpreter Used:_____

☐ Other
Date of Interview: _____
Location of Interview: _____
Interpreter Used:_____

Were health care providers consulted? ☐Y ☐N ☐U

Who was consulted?
☐ Physician ☐ Infectious disease physician
☐ PA/FNP ☐ Other

Medical records reviewed? ☐Y ☐N ☐U

Sources:
☐ Hospital ☐ Clinic/Health Care provider
☐ Other_____

Please specify reason if medical records were not reviewed:

Notes on medical record verification:

GEOGRAPHICAL SITE OF EXPOSURE

In what geographic location was the patient MOST LIKELY exposed?

Specify location:

☐ In NC
City _____
County_____

☐ Outside NC, but within US
City _____
State _____
County_____

☐ Outside US
City _____
Country _____

☐ Unknown

Is the patient part of an outbreak of this disease? ☐Y ☐N

Notes regarding setting of exposure:

Foodborne poisoning: mushroom

2007 Case Definition (North Carolina)

Clinical description

Mushroom poisoning is caused by the consumption of raw or cooked fruiting bodies (mushrooms, toadstools) of a number of species of fungi. The toxins involved in mushroom poisoning are produced naturally by the fungi themselves and most mushrooms that cause human poisoning cannot be made nontoxic by cooking, canning, freezing, or any other means of processing.

Mushroom poisonings are generally acute and are manifested by a variety of symptoms and prognoses, depending on the amount and species consumed. Mushroom poisonings are generally categorized by their physiological effects. There are four categories of mushroom toxins: protoplasmic poisons (poisons that result in generalized destruction of cells, followed by organ failure); neurotoxins (compounds that cause neurological symptoms such as profuse sweating, coma, convulsions, hallucinations, excitement, depression, spastic colon); gastrointestinal irritants (compounds that produce rapid, transient nausea, vomiting, abdominal cramping, and diarrhea); and disulfiram-like toxins. Mushrooms in this last category are generally nontoxic and produce no symptoms unless alcohol is consumed within 72 hours after eating them, in which case a short-lived acute toxic syndrome is produced.

The most important mushroom poisonings from a public health perspective are those caused by *Amanita phalloides* mushrooms, which produce a heat stable toxin that causes nausea, vomiting, diarrhea, thirst, pupil dilatation, collapse, coma and death; and *Muscaria* type mushrooms, that cause symptoms including salivation, perspiration, pupil dilatation, and wheezing or difficulty breathing. Symptoms from these two types of mushrooms can develop within minutes to 24 hours after consumption of toxic mushrooms in food, whether cooked or not.

Laboratory criteria for diagnosis

Laboratory tests exist for the *Amanita* toxins, but they are not widely available. Diagnosis for all types of mushroom poisonings is usually made on the basis of symptoms in patients with mushroom exposures, and is often aided by correct identification by someone who is well versed in identifying mushroom types of the mushroom species the patient consumed.

Case classification

Confirmed: a clinically compatible case in someone with mushroom exposures